

AGRICULTURE

North Africa Over-Peopled

French who seek to reclaim land with science face problems familiar elsewhere. Due to increased population, people are farming slopes, causing erosion.

► FRENCH agricultural administrators in North Africa are up against some tough problems, states Dr. Walter C. Lowdermilk, Berkeley, Calif., who spent some months in that region as consultant for the French colonial government, following his recent retirement from the U. S. Soil Conservation Service.

Fundamentally, the troubles of the French there have the same starting point as those of agricultural planners elsewhere in the world: too many people for the land to support, at least by present land-use methods. The native population has been increasing fairly rapidly since the French suppressed intertribal warfare. Lacking new land at lower altitudes, the people are farming higher and higher up the mountain slopes. The result, there as elsewhere, has been ruinous erosion, plus a good deal of choking of irrigation works with silt.

Grazing practices of the people, in Morocco particularly, have aggravated the situation. Sheep, goats and camels are the principal livestock animals, and all three are most destructive feeders. It is a byword among the French that "What the sheep leave the goats eat; what the goats leave the camels eat—and the camels don't leave anything." The result again is deadly erosion. And since the people are tradition-bound Moslems it is practically impossible to persuade them to anything new.

In Morocco, Dr. Lowdermilk stated, there is a good deal of potentially productive land at lower levels. It could be reclaimed for farming if irrigation water could be got onto it. There is a good water supply in the mountains. It might seem a simple matter to build dams and dig canals from the mountains to the lowlands.

However, there is an intermediate zone flanking the rock core of the mountains through which waters flow, where the native rock and its soil, an uplifted ancient sea bottom, still has a good deal of salt in it. River waters pick up some of this salt as it flows through. Evaporation in the lowlands might produce enough concentration of the salt to ruin the very soil being reclaimed. This problem is not beyond solving, Dr. Lowdermilk thinks; but solving it would require time—and the population pressure demands an immediate rather than a long-time answer.

In Algeria and Tunis, which have been longer under French occupation, there are more French settlers. The latter have been subjected to some criticism for crowding

the Arabs off their land; but this, Dr. Lowdermilk feels, is not well founded. Largest expansions in French-worked acreage, he states, have been made by draining swamps and bulldozing out big thickets of a scrub palm quite similar to the scrub palmetto of our own Southeast. The Arabs had neither the machinery nor the capital for these two types of reclamation, and the French had. So the French developed part of the new land, and demonstrate how the larger part of the land can be reclaimed for the native people, when they will accept modern agricultural methods.

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AERONAUTICS

Record Flight Conditions With New Airborne Device

► A NEW automatic instrument for installation in airplanes, which will make and keep a continuous record of flight conditions encountered, was revealed by General

Electric. Items recorded include air roughness, altitude, and the operation of the automatic pilot and of the de-icing equipment.

The actual record is made by a stylus which traces through a thin coating on a slowly moving strip of paper, leaving a black trace. These recorders will provide commercial airlines with increased information on their flight operations, and make possible greater operational control. A commercial installation will be made soon in a transport of Capital Airlines to determine its practical value in scheduled flying.

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ENGINEERING

Windchill To Be Studied In New Army Wind Tunnel

► HEAT LOSS from objects subjected to winds of various speeds is under study at the Army's Engineer Research Laboratories, Fort Belvoir, Va., and for the purpose a unique wind tunnel has been installed. Accurately controlled air speeds from one to 100 miles an hour can be obtained.

Designed for use in two already existing temperature test chambers, the new tunnel may be operated at atmospheric temperature ranging from 70 degrees below zero Fahrenheit to 150 degrees above. In addition, it can be used in humidity ranges



FLIGHT RECORDER—The device automatically records air roughness, altitude, and operation of automatic pilot and de-icing equipment on aircraft. It is being checked here in a B-29 Flying Laboratory at General Electric Flight Test Center near Schenectady, N. Y.

from 20% to 100%, and in simulated altitudes up to 25,000 feet.

Stated technically, the tunnel will be used to compile data on the acceleration of heat loss due to windchill. Of particular interest, is a study concerning the best shape of an object to minimize heat loss. This, from the military point of view, can be translated into savings of fuel in cold climates, such as northern Alaska.

The throat of the tunnel measures only one square foot, but this is large enough

for testing small objects mounted on its half-inch steel floor. A pictorial record of the air current can be made by mounting a camera in an aperture on one side of the throat, and a light source similarly on the other. Smoke introduced at the blower will result in a shadowgraph showing concentrations of smoke particles where the air currents are most dense. Heat transfer from the object will be recorded electrically.

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did not cure them. But it did cause a profuse peeling of the scalp, which led Dr. Perlman to think it might help in psoriasis.

The psoriasis patients had had their skin trouble for from two months to 27 years. The psoriasis spots began to disappear in three and four days after treatment in some cases, while others took two weeks or more. Relief of itching came in some cases in two days after starting the medicine, while in others the itching was at first worse and then gradually got better. In three patients there was complete disappearance of the psoriasis. In six patients there was 75% disappearance and in the others there was 50% disappearance.

Dr. Perlman thinks, though there has not been enough time to be sure of this, that the recurrence of the disease can be prevented by the treatment.

Patients took the capsules three times a day. The best size of dose has not yet been determined. Many patients complained of a bitter taste after the medicine. Belching was another unpleasant symptom. Some also had stomach distress and nausea. Putting the chemical into capsules which do not dissolve until they get into the intestines probably would eliminate the stomach distress and nausea but it is not yet available in this form. Carbonated waters, soft drinks or soda bicarbonate, Dr. Perlman found, relieve the stomach distress and nausea.

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AGRICULTURE

World Agriculture Census

► SOME TIME after 1950, we are going to know more about rice in Siam and farming in the rest of the world than has ever been learned before. This will be the result of a comprehensive census of world agriculture slated for next year, under the auspices of the Food and Agriculture Organization of the United Nations.

More than 65 nations, most of them FAO members, have indicated that they will cooperate in the census.

Here in this country it will be nothing new. The facts on farming will be compiled along with all the rest of the census information on the U. S. in the regular 1950 census.

Conspicuous as usual by her absence is the U.S.S.R. which has not taken any interest in the project. But Poland, Hungary and Czechoslovakia, all FAO members now under Communist influence, are expected to cooperate in the greatest farm-fact-collecting undertaking ever planned.

Two previous world agriculture surveys have been made, but FAO hopes it can produce more accurate and complete figures. The earlier surveys were conducted under the leadership of the International Institute of Agriculture at Rome in 1930 and

1940. The latter census was of course abandoned by many countries because of World War II.

Compared with the comprehensive statistics compiled by the U. S. Department of Agriculture, the questions which will be asked farmers around the world seem pretty brief. But it will be the first time that many farmers in some lands have ever been quizzed on the extent of their operations.

Six groups of information will be sought. These will involve the size and kind of farm; how the land is used; how many people are on the farm; area harvested of various crops; use of animal or mechanical power; and livestock population.

In addition to this minimum question sheet, more detailed surveys are being planned which it is hoped can be used in many countries.

One of the biggest problems, which is being tackled now, is training personnel to conduct the survey, particularly in backward areas.

When the census is completed, FAO hopes it can give the world the best picture of the world food situation it has ever had.

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MEDICINE

Acid from Sweat Aids Skin

► PATIENTS with psoriasis and another stubborn itchy skin disease, neurodermatitis, may get help from pills containing a fatty acid found in sweat.

"Definite improvement in the psoriasis" in 17 patients and "improvement or disappearance of the lesions and itching" in eight patients with neurodermatitis following treatment with the new remedy are reported by Dr. Henry Harris Perlman of Philadelphia in the *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION* (Feb. 12).

Calling the new medicine "an interesting approach to the control" of these two diseases, the editor of the *A.M.A. Journal* warns, however, that the method "is still in the stage of experimental investigation and must be so regarded until further evi-

dence is accumulated. Under no circumstances should it be accepted at this time as the most effective and only treatment."

Dr. Perlman himself points out that more time and study of a larger number of patients are needed to determine the true value of the remedy.

Its technical name is undecylenic acid. Made into a powder and an ointment, it was found by Navy medical officers to be good for preventing and treating athlete's foot. Dr. Perlman was led to its use by reports from other scientists of its killing action on the fungus that causes ringworm of the scalp.

He had some of it made up in capsules to be swallowed and gave it to four children with ringworm of the scalp. It helped but

MARINE BIOLOGY

"Hot Water Fish" Added To U. S. National Museum

► MORE than 5,000 fish and other sea animals from probably the hottest body of salt water in the world have been brought back to the U. S. National Museum in Washington from the Persian Gulf.

The Gulf is a shallow body of water connected to the Indian Ocean by a narrow channel. In midsummer, water temperatures reach over 100 degrees Fahrenheit. It has less sea life than cooler waters, and fish and animals found there have been able to adapt themselves to the warm water.

Strangest of the fishes collected by Donald S. Erdman of the staff of the Smithsonian Institution are "sea moths," "fool fishes" and highly poisonous jellyfish. The "sea moths" are little brown creatures with large fins, that live on the surface of the water. "Fool fish" are simply stupid, sluggish fish which make no effort to escape capture even when a bright light is shone on them. The poisonous jellyfish, dreaded by Arabian fishermen, are coffee-colored organisms with small bodies but dangerous tentacles from two to three feet long.

Mr. Erdman's survey was carried out under the sponsorship of the Arabian-American Oil Company.

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